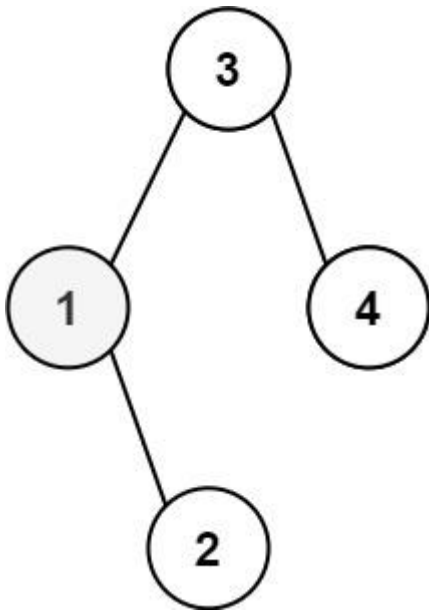


## Kth Smallest Element in a BST [\(View\)](#)

Given the `root` of a binary search tree, and an integer `k`, return the  $k^{\text{th}}$  smallest value (**1-indexed**) of all the values of the nodes in the tree.

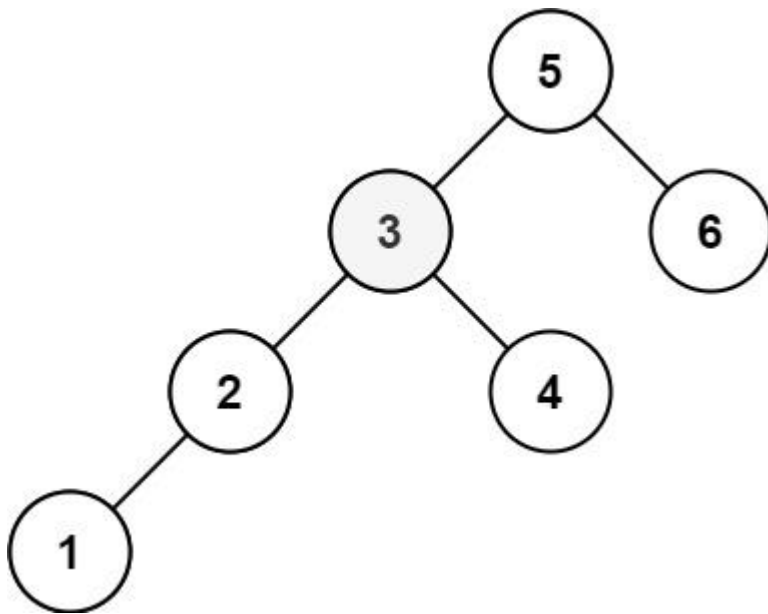
**Example 1:**



**Input:** `root = [3,1,4,null,2]`, `k = 1`

**Output:** 1

**Example 2:**



**Input:** root = [5,3,6,2,4,null,null,1], k = 3

**Output:** 3

**Constraints:**

- The number of nodes in the tree is  $n$ .
- $1 \leq k \leq n \leq 10^4$
- $0 \leq \text{Node.val} \leq 10^4$